



## Original research article

## Positive deviance and behavior change: A research methods approach for understanding fossil fuel divestment

Abigail Abrash Walton

Faculty, Department of Environmental Studies, Antioch University New England, 40 Avon Street, Keene, NH, United States



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## ABSTRACT

This article presents research designed to deepen understanding of institutional fossil fuel divestment, as one approach to addressing climate change. Since 2011, a growing global social movement has emerged focused on divestment of fossil fuel company holdings and reinvestment of those resources in clean energy. The study used a qualitative research design, employing a positive deviance approach and the Transtheoretical Model of Behavior Change (TTM), a well-established clinical psychology framework, to explore U.S.-based foundation leaders' readiness to pursue divestment. Investors have conventionally relied on fossil fuel holdings as investment portfolio mainstays. Therefore, leaders' divestment behavior constituted positive deviance: intentionally engaging in non-normative behavior intended to contribute to successful outcomes. The study examined leaders' motivations and actions in pursuing divestment, while simultaneously exercising their fiduciary (legal) duty to steward responsibly institutional assets. Research questions focused on the divestment behavior change process. Data collection and analysis were derived from two datasets: 34 foundation divestment commitment statements and semi-structured interviews with 18 foundation leaders. Findings included that leaders engaging in divestment may experience higher levels of satisfaction, pride, happiness, and engagement with organizational roles. Results yielded insights into organizational leadership, climate action, and utility of positive deviance and the TTM as research methods.

## 1. Introduction

Climate change is one of the most significant dynamics of the Anthropocene Epoch [1]. The predominant contributor to climate change is combustion of fossil fuels by humans [2–4]. World leaders have called for urgent action on climate change [5,6]. Effective change leadership is urgently needed to turn the tide in addressing climate change.

Since 2011, a worldwide climate change action movement has emerged focused on fossil fuel divestment and reinvestment of those resources in clean energy technologies. Pledged and/or already-divested global institutional assets are estimated at \$5.5 trillion [7] or 8 percent of global stock market value. U.S.-based philanthropic foundations have emerged as leaders in this change movement [8–10].

Within a capitalist economy, one form of power is financial investments. How we choose to invest our financial resources has implications for what types of business activity – and systems of extraction, production, use, and disposal – we “vote” to support. Within this context, divestment has emerged as a particular type of “no confidence vote”. Divestment is commonly pursued through the sale of stock holdings in firms whose activities are the focus of disapproval. Meta-

analysis of empirical research of divestment movements (e.g., alcohol, gambling, nuclear power, pornography, tobacco, South African apartheid) suggested that fossil fuel divestment was likely to yield direct and indirect impacts. Predicted impacts included: (a) shift market norms by sparking establishment of fossil-fuel-free investment instruments; (b) end debt financing to fossil fuel companies by some banks, including the World Bank and other international financial institutions; (c) increase stigmatization of the fossil fuel industry; (d) possible policy change; and (e) prompt neutral investors to reduce their expectations of fossil fuel companies' long-term net cash flows, affecting enterprise value [11].

## 1.1. Research framework and rationale

This study was designed to deepen understanding of organizational leadership's role in enacting institutional fossil fuel divestment as one approach to addressing climate change. The study used a positive deviance research approach [12,13] to examine a population of leaders, who intentionally acted outside the norms of their sector (philanthropy)—and the norms of typical corporate governance—to break away from investing in fossil fuels. The study conceptualized fossil fuel

E-mail address: [aabrash@antioch.edu](mailto:aabrash@antioch.edu).<https://doi.org/10.1016/j.erss.2018.07.003>

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divestment by these leaders as a specific intentional pro-environmental behavior change at an organizational level, and within a sector. Behavior change is challenging [14–17]. Institutional investors have conventionally relied on fossil fuel holdings as investment portfolio mainstays.

The research focus was designed to contribute new knowledge about what motivated and facilitated positively deviant divestment behavior change by leaders of institutions with significant financial resources. To do so required synthesis and analysis of existing scholarship and empirical research on divestment and socially responsible investing, relevant leadership constructs, philanthropic institutions as organizational units, pro-environmental behavior, the psychology of climate change action, and behavior change models, including the Transtheoretical Model of Behavior Change.

Pro-environmental behavior (PEB) is behavior that “harms the environment as little as possible, or even benefits the environment” ([18], p. 309). Actions to mitigate or adapt to climate change may be understood as PEB [19]. Facilitating PEB at an individual level is important to achieving environmental solutions [18,20,21]. Yet behavioral change also takes place within the context of social systems. Organizations – or sectors of society – where individual behavior is shaped and aggregated by organizational or sectoral policies and practices, is a critical locus for PEB change and is under-represented in the literature [15,22].

Scholars have noted the need for more research that examines leaders’ facilitation of PEB change within organizations [23], including corporate social responsibility [24–26]. The role of formal leaders in socially responsible investing is also underexplored [27,28] as is the specific role of philanthropic foundations in mission-aligned investing [29]. Limited research on fossil fuel divestment [8,11,30,31] explored the growth and significance of the movement. None of these studies focused specifically on the role of institutional leaders in pursuing divestment, as a behavior change. The studies also did not examine how leaders successfully pursued divestment, what processes facilitated this change, or what the impacts of divestment were on leaders or their organizations. This study’s research questions addressed these gaps.

## 1.2. Research questions

The study connected disparate literatures, theory, and research foci to investigate the question of what explained the readiness of U.S.-based private foundation leaders to pursue institutional divestment of fossil fuels. The study’s sub-questions were:

1. What prompted these leaders and/or their organizations to pursue institutional divestment?
2. How did these leaders characterize their own experiences with respect to their institutions’ commitment to fossil fuel divestment?
3. What reservations or questions did these leaders have in committing to and implementing institutional divestment?
4. What benefits did they perceive?
5. How did these leaders describe the impact of the divestment decision on their organizations?

## 1.3. Transtheoretical model of behavior change

The study used, as a primary theoretical lens, the Transtheoretical Model of Behavior Change (TTM), because of its rigorously tested validity as a change model [32]. The TTM is an integrative research- and evidence-based psychological approach to understanding and facilitating behavior change. Prochaska and colleagues developed the TTM in the late 1970s, through grounded theory method that examined how individuals successfully engaged in stopping addictive behaviors (i.e., smoking and alcohol consumption) [33,16]. Researchers have applied the TTM to some 50 individual behaviors (e.g., smoking cessation, diet, exercise, medication compliance, safe sex) [32,34,35] and to

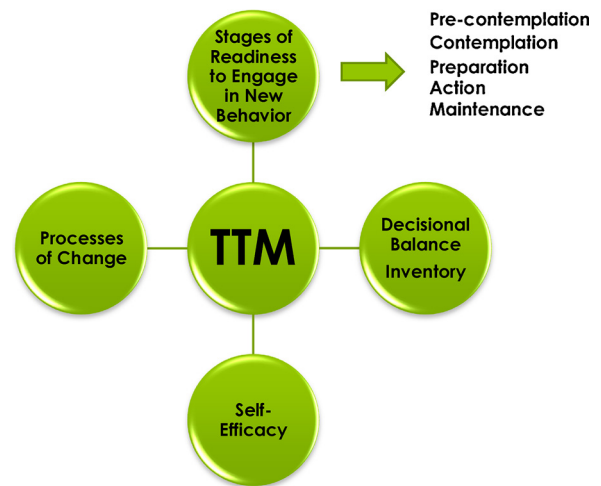


Fig. 1. Core constructs of the TTM.

(Adapted from source: [www.prochange.com](http://www.prochange.com)).

organizational change initiatives [36,17,37,38].

Established theory in one domain can have a transformational effect in another field of inquiry [39]. Scholars and others have described the use of fossil fuels as an addiction [40,41]. Addiction models may be applicable to addressing reliance on fossil fuels [41]. The TTM’s origins, in the study of successful change regarding addictive behaviors suggested its possible explanatory value in understanding the study phenomenon.

Researchers have posited the utility of applying the TTM to PEB [42–44] by focusing on the dimension of readiness to change. However, little peer-reviewed empirical research has used TTM theoretical and methodological approaches to understanding and facilitating PEB [45–47]. This study was designed to advance PEB research by investigating, specifically, the readiness of leaders to pursue the new PEB of fossil fuel divestment.

### 1.3.1. Description of the model

The TTM has four major constructs: (a) stages of readiness to engage in the new behavior; (b) decisional balance inventory; (c) self-efficacy; and (d) processes of change (Fig. 1).

**1.3.1.1. Stages of readiness to engage in the new behavior.** The stages of readiness to engage in a new behavior construct is based on the theory that there are five recognizable stages associated with any given behavior change. An individual is in a particular stage regarding any given behavior. These stages are:

1. Pre-contemplation—not ready to engage in the new behavior (e.g., unaware, discouraged or resistant)
2. Contemplation—considering engaging in the new behavior
3. Preparation—actively preparing to engage in the new behavior
4. Action—engaging in the new behavior
5. Maintenance—continuing the new behavior for at least six months

Progress through these stages is not necessarily linear or steady. For example, a person might spiral through contemplation, preparation, and action more than once.

**1.3.1.2. Decisional balance inventory.** The decisional balance construct is based on the understanding that decision-making requires consideration of potential positive and negative consequences [48]. The model posits that an individual is more likely to be satisfied with a decision if the person has considered the pros (gains) and the cons (losses) of the choice. Another aspect of this construct is confidence in

or belief that the change behavior will be effective in achieving desired outcomes. For example, with respect to PEB, this might include confidence that recycling is effective in reducing energy usage and pollution associated with extracting raw materials and waste disposal.

**1.3.1.3. Self-efficacy.** The self-efficacy construct concerns an individual's confidence in engaging in the new behavior [49]. Self-efficacy can influence motivation and persistence in engaging in the behavior change. Self-efficacy increases and the possibility of relapse decreases as individuals move into action and maintenance.

**1.3.1.4. Processes of change.** The fourth TTM construct is the ten processes that can support behavior change. Five processes employ cognitive and affective experiences. Five processes are behavioral. The cognitive and affective experiential processes are more effective in facilitating progression through earlier stages of readiness to engage in the new behavior (pre-contemplation and contemplation). The behavioral strategies are more important for supporting individuals in the later stages of readiness to engage in the new behavior (preparation, action and maintenance). Specific processes tend to support effective movement through the stages when provided at a particular stage. For example, movement from pre-contemplation to contemplation is best facilitated by consciousness-raising activities, dramatic relief, environmental re-evaluation, and social liberation. The applicability of any of these ten change processes is contingent upon the specific behavior and context in which the change is occurring [16,38].

### 1.3.2. The TTM and PEB

Researchers have not arrived at an integrative theoretical model for understanding or facilitating PEB [15,18]. Common PEB theory and models include the Theory of Planned Behavior [50], Value-Belief-Norm theory [21,51], and Community-Based Social Marketing [52].

The TTM differs significantly from common PEB models [15] in terms of the stages of change and processes of change constructs. Other models do not focus on an individual's readiness to change. Instead, they consider sometimes abstract determinants of behavior based on a static position or snapshot rather than understanding behavior within a temporal landscape. Importantly, the TTM's processes of change construct also offers techniques for facilitating behavior change. The TTM therefore addresses a critical question within the research field concerning PEB change: what specific tools to employ and when [53].

### 1.4. Positive deviance

Positive deviance has been defined as an assets-based approach to behavior change [13]. In the positive organizational scholarship literature, positive deviance is understood as voluntarily and intentionally acting outside the norms of one's sector, in ways that are honorable and are intended to contribute to other metrics of success [12]. The study's research focus on understanding leaders' positive deviance in pursuing fossil fuel divestment, an unconventional investing behavior, could yield insights that would advance understanding of organizational change leadership with respect to climate change and energy transitions.

Positive deviance has emerged as a characteristic of leadership positively associated with environmental sustainability [54]. Pascale and Sternin [55] emphasized the innovative nature of positive deviants, noting that their "uncommon practices and behaviors enable them to find better solutions to problems than others in their communities" (p. 2). Positive deviants may engage in behavior that exhibits a "courage to challenge" [56] and to exhibit courageous resistance by moving beyond being "bystanders" [57]. Positive deviance may be enacted at the individual or organizational scale. The term is understood to be evaluative, and to reference positive intentions as opposed to actual outcomes of the behavior.

## 2. Methodology

The study used a qualitative research design that employed content analysis of interview data and narrative text, using inductive, theory-based, and prior-research-based category development.

### 2.1. Research design and approach

The study used a phased approach. Phase 1 included descriptive statistical analysis of all foundations within the full study population ( $N = 36$ ) and content analysis of institutional commitment statements that were publicly available on the Divest-Invest Philanthropy website. Phase 2 included development and administration of an interview protocol, with a subset of foundation leaders ( $n = 18$ ) and content analysis of the interview data, using coding, based on theory, prior research, and emergent themes from the data.

#### 2.1.1. Research design justification

This study used an interpretive, qualitative research design. This design, consistent with positive organizational scholarship research [58], is appropriate for early stages of inquiry and for examination of unusual or complex phenomena [59,60].

This study used content analysis, consisting of defining categories of the phenomenon, into which discreet elements of narrative textual data were classified and grouped [61]. The study employed inductively generated coding as well as coding based on the TTM and other prior research regarding leadership, positive deviance, pro-environmental behavior and climate change, and socially responsible investing. Categories were identified in advance, based on the literature and Phase 1 content analysis; new categories emerged through inductive analysis (see Table 2). This approach was consistent with iterative cycles of analysis [62] and with other research that informed this study [63–66]. The study followed an inductive analytic approach similar in its core question to that which the TTM's originators employed [16]: explaining how people successfully change difficult behaviors, with or without external intervention.

The design was also consistent with application of the TTM to a new behavior. This requires identification of the criteria that define action for the target behavior [37]. This study employed two methods: topical literature review and interviews with individuals who were successfully engaging in the behavior. The research design followed other studies using a qualitative approach to application of the TTM [67–69].

### 2.2. Setting and sample

This study sample was clearly different from the general population of U.S. foundations, because of the commitment to fossil fuel divestment. This sample was important for theory development because it enabled studying a deviant group of individuals within the general population [62]. This sample had taken "distinctive steps" to act ([65], p. 12), or at a minimum, publicly committed to act through divestment.

#### 2.2.1. Population and eligibility criteria

When preliminary data collection began, 65 foundations were publicly listed as having made a divestment commitment [70]. Thirty-six foundations met the study criteria:

- U.S.-based, private independent foundation, as defined by the U.S. Internal Revenue Service [84].
- Public commitment to divest the foundation's institutional assets from fossil fuels [70].

#### 2.2.2. Description of participants

Interview participants were senior leaders (board chair, CEO, executive director, or president) of the subset of 36 U.S.-based private independent foundations that met the study population criteria.

This focus on senior leaders as the observational unit of analysis is

based on the understanding that this positionality establishes the participant as an “authoritative and knowledgeable representative” of the board of directors or trustees [71].

### 2.2.3. Sampling method

Theoretical sampling was used in selecting interview participants, the recommended approach for analytic induction. The aim of this approach was to maximize the differences among the study participants. The goal was to interview participants who represented the maximum variation within the demographic and stage of change indicators within the total population. These elements were: size of total foundation assets, professionally staffed v. family/board-run foundation, geographic location, and apparent stage of change with respect to commitment implementation.

### 2.2.4. Sampling size

For Phase 1, the sample was the complete population of foundations (N = 36) that met the eligibility criteria, including those for which there were institution-specific, publicly available statements of the divestment commitment (n = 34). For Phase 2, the interview sample size was 18 participants, representing 18 foundations. This sample size constituted half of the total study population. Because an anticipated finding of this study was the emergence of theory-based capabilities, characteristics, and contextual factors among a relatively homogeneous group, a sample of 18 participants was likely sufficient [72].

The sample size was also consistent with the approach employed by other researchers who have studied sustainable and mission-aligned investing [27,29] and pro-environmental organizational leadership [66].

### 2.2.5. Participant recruitment

Most names of the specific leaders associated with each foundation's divestment commitment were publicly available on the DivestInvest website. Specific institutional leaders were also identified through the respective organizations' Form 990 Internal Revenue Service filings or through communication with intermediaries (for example, the foundation's tax accountant professional). Initial communication with prospective participants or others with knowledge of the organization was used to establish that those leaders were the most qualified individuals within the organization, based on their direct involvement and leadership with respect to the divestment decision.

Recruitment consisted of three techniques:

1. Personal introductions by third-party contacts
2. Direct contact by researcher
3. Snowball sampling technique

### 2.3. Data collection

Interviews were conducted during a seven-week period between June and August 2015. Four interviews were in person and 14 were recorded by telephone.

## 3. Research findings and results

Findings derived from two datasets: 34 foundation commitment statements to divest from fossil fuel investments and interviews with 18 leaders of these foundations.

### 3.1. Phase 1: public commitment statements

Phase 1 focused on analysis of 34 U.S.-based Divest-Invest foundation public commitment statements. Thirty-six foundations made a public commitment to divest; two organizations had not posted a public statement.

**Table 1**

Descriptors of Study Population Organizations.

Foundation Identifier	Geographic Region	Total Institutional Assets (millions)	Divest-Invest Public Commitment Statement
A	West Coast	< \$10	Yes
B	East Coast	< \$10	Yes
C	East Coast	< \$10	Yes
D	East Coast	< \$10	Yes
E	West Coast	< \$10	Yes
F	East Coast	< \$10	Yes
G	East Coast	< \$10	Yes
H	East Coast	< \$10	Yes
I	East Coast	< \$10	Yes
J	East Coast	< \$10	Yes
K	West Coast	< \$10	Yes
L	East Coast	\$10–30	Yes
M	West Coast	\$10–30	Yes
N	East Coast	\$10–30	Yes
O	Mountain/Midwest	\$10–30	Yes
P	Mountain/Midwest	\$10–30	Yes
Q	West Coast	\$10–30	Yes
R	East Coast	\$10–30	No
S	East Coast	\$10–30	Yes
T	West Coast	\$10–30	Yes
U	Mountain/Midwest	\$30–100	Yes
V	West Coast	\$30–100	Yes
W	East Coast	\$30–100	Yes
X	East Coast	\$30–100	Yes
Y	West Coast	\$30–100	Yes
Z	East Coast	\$30–100	Yes
AA	East Coast	\$30–100	No
AB	West Coast	\$30–100	Yes
AC	West Coast	> \$100	Yes
AD	West Coast	> \$100	Yes
AE	East Coast	> \$100	Yes
AF	East Coast	> \$100	Yes
AG	West Coast	> \$100	Yes
AH	West Coast	> \$100	Yes
AI	East Coast	> \$100	Yes
AJ	East Coast	> \$100	Yes

#### 3.1.1. Phase 1—study population organizational characteristics

The 36 foundations were broadly focused on environmental justice/protection; civic engagement and social change organizing; creating a socially just, sustainable, and peaceful society; arts and education; health; and youth programs. These mission foci were gleaned from review of foundation websites, profiles on the Foundation Center website, and public commitment statements on divestment. Total combined organizational assets equaled US\$3 billion, and ranged from US \$640,000 to US \$801 million. Mean assets size was US \$83 million. Table 1 identifies each foundation with a corresponding letter, institutional asset size, and geographic location, and indicates whether or not the foundation had a public commitment statement regarding fossil fuel divestment.

#### 3.1.2. Phase 1—content analysis

Content analysis was used to analyze the public statements. An example of the coding is presented in Fig. 2; the terms in color highlights are the codes that applied to the data.

Fourteen categories and nine subcategories resulted from the coding process. Table 2 indicates frequency counts for each of the categories and subcategories. Frequency counts for primary categories are associated with one count per foundation. For example, all 34 public commitment statements, either explicitly or implicitly, referenced aligning investments with mission, vision, values, and/or grant-making. Similarly, 21 of the 34 foundations exhibited climate change awareness explicitly. This climate change awareness was expressed in three primary ways: sense of crisis and urgency, a focus on climate solutions, and recognition that action was needed to mitigate climate change. Some public statements included more than one of these subcategories.



**Table 2**  
Content Analysis of Public Statements: Categories and Subcategories (With Frequency Counts).

1) Aligning investments with mission/vision/values/grant-making (34)
2) Climate change awareness (21)
(a) Sense of crisis and urgency (10)
(b) Focus on solutions (8)
(c) Action needed to mitigate (4)
3) Other end-state motivators (vision/mission/values) (26)
(a) Environmental protection (15)
(b) Focus on future (11)
(c) Sustainability (10)
(d) Health (human and livable planet) (9)
(e) Economic well-being/justice (6)
(f) Justice (4)
4) Collective Action (with others in the philanthropic sector) (18)
5) Concern about/Rejection of fossil fuels (17)
6) Positive Emotions (about Divest-Invest/taking action) (12)
7) Creating positive future/transformational change (10)
8) Invest in Clean/Renewable Energy (9)
9) Fiduciary duty/Responsibility (7)
10) Feasibility of Divestment (7)
11) Creating a demonstration effect to influence others (7)
12) Negative Emotions (about fossil fuel industry/energy) (4)
13) Exercising Leadership (3)
14) Moral/Ethical Concerns (3)

### 3.2. Phase 2: interviews

The second phase of data collection was comprised of interviews with 18 foundation leaders representing 18 different Divest/Invest Philanthropy signatories.

#### 3.2.1. Phase 2—participant characteristics

Participants in this study were individuals who held significant decision-making power with respect to the use of institutional financial resources and other assets. Participants in the study were clustered primarily near Boston, MA; New York, NY; San Francisco, CA; Seattle, WA; and Washington, DC. Table 3 presents basic descriptive information for each participant, including institutional role (i.e., board member or chief executive).

Data collected in response to the question “[A]re there any other foundation leaders whose organizations have committed to fossil fuel divestment and with whom you think I ought to speak?” suggested the degree to which specific participants and other individuals and foundations outside of the study were viewed by their peers as leaders on this issue and the extent to which they were networked with one another.

The individuals most frequently cited by other participants as leaders on this issue were professional executives (F12, F14, F15, F17, F18) of larger foundations within the study population. These leaders’ foundations had institutional asset size greater than \$100 million ( $n = 4$ ) or between \$30 million and \$100 million ( $n = 1$ ). Each of these individuals was referenced at least three times by other participants. Some participants—primarily board leaders of small foundations—appeared to be disconnected from any direct relationship with other study participants (F2, F3, F4, F5, F8). As one leader shared, “[I] haven’t been involved at all in any of the organizing behind the movement. . . I don’t know a lot of the players yet.” [F8] Fig. 3 portrays visual representation of participants’ referrals to other leaders.

**Table 3**  
Descriptors for Participants.

Participant Identifier	Total institutional assets (millions)	Institutional role	Geographic Region
F1	< \$10	President	West Coast
F2	< \$10	Trustee	East Coast
F3	< \$10	Trustee	East Coast
F4	\$10–30	Board Chair	West Coast
F5	\$10–30	Executive	West Coast
F6	\$10–30	Director	East Coast
F7	\$10–30	Executive	East Coast
F8	\$10–30	Director	Mountain/Midwest
F9	\$10–30	President	East Coast
F10	\$30–100	Trustee	East Coast
F11	\$30–100	Executive	Mountain/Midwest
F12	\$30–100	Director	East Coast
F13	\$30–100	Executive	West Coast
F14	\$30–100	Director	West Coast
F15	> \$100	Executive	East Coast
F16	> \$100	Director	East Coast
F17	> \$100	CEO	West Coast
F18	> \$100	Trustee	West Coast
		Executive	East Coast
		Director	East Coast
		President	East Coast

### 3.3. TTM: divestment behavior change process

Analysis using the TTM framework generated understanding of how organizational leaders moved along the stages of change continuum, from contemplation to preparation, action, and maintenance. Findings revealed the detailed: (a) elements of the divestment decision, at an organizational scale; and (b) thoughts, feelings, and actions of leaders during the divestment behavior change process.

#### 3.3.1. Stage of change

Stage of change can describe the organization’s position with respect to divestment commitment and implementation. Stage of change can also describe individual leaders’ readiness with respect to fossil fuel divestment commitment and implementation. All foundations in this study had been in the contemplation stage, while fewer than 25 percent had reached the maintenance stage of divestment. Analysis focused primarily on findings regarding the contemplation stage, because it is the critical stage preceding preparation (commitment) to engage in the behavior change.

**3.3.1.1. Organizational stage of change.** Data collected in response to the interview question “At what stage of divestment implementation is your institution?” provided insight into reported stage of change. The interviews also yielded descriptive data. These data were: (a) decision time frame for each organization’s commitment (from first consideration to board vote or equivalent pledge); and (b) status of divestment commitment implementation.

Participants’ organizations were in one of three possible stages of

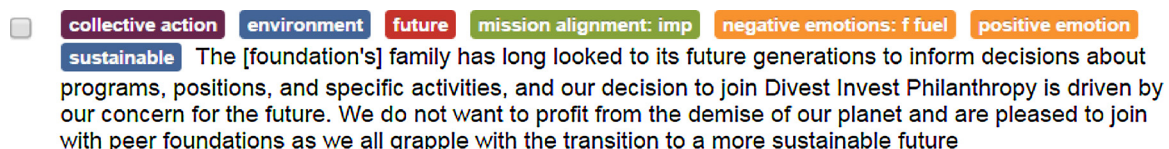


Fig. 2. Public statement coding example.

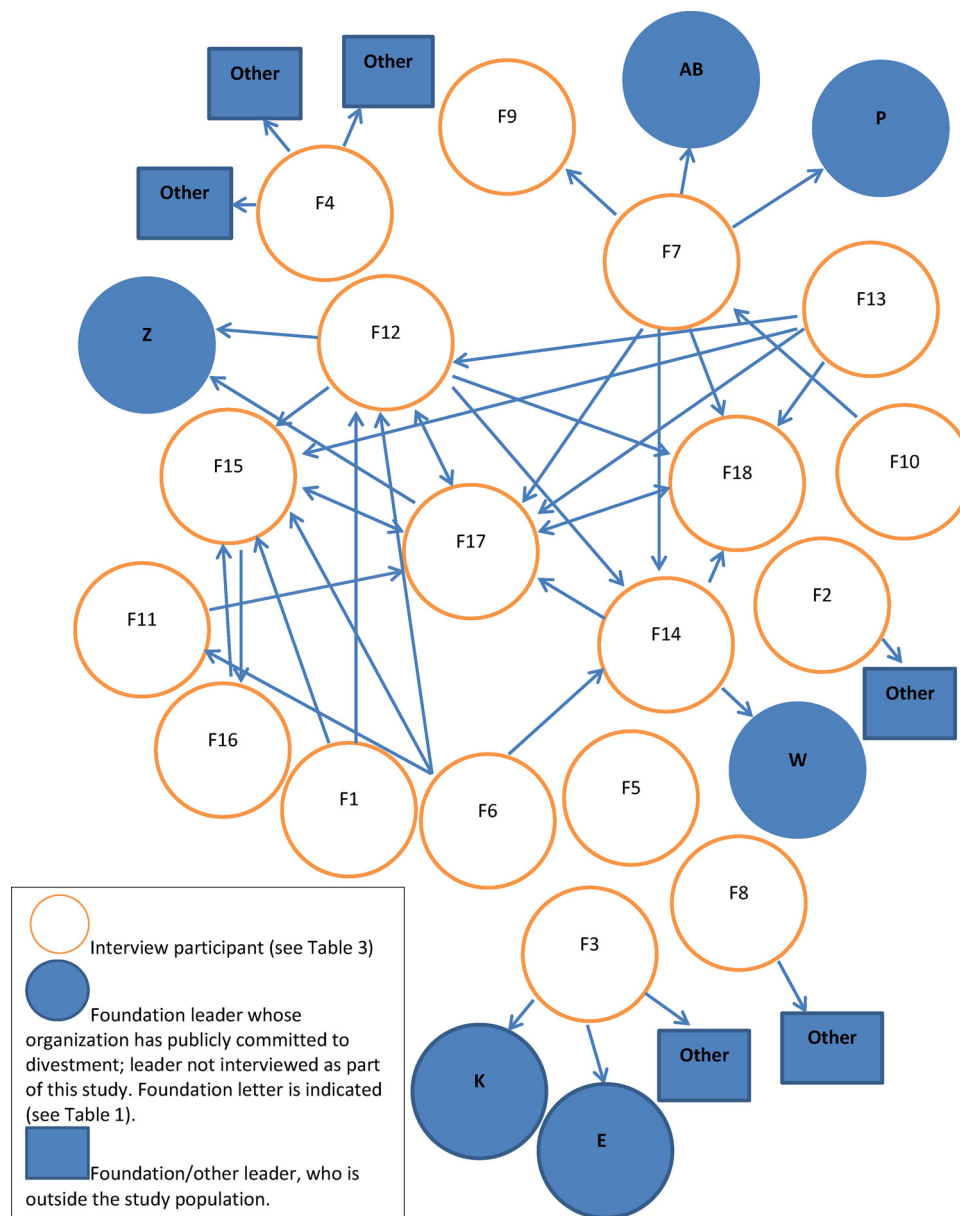


Fig. 3. Participant referrals to other organizational leaders.

readiness to change with respect to implementation of their divestment commitment: preparation (P), action (A), or maintenance (M). Becoming a signatory to the Divest-Invest Philanthropy commitment statement signaled entrance into the preparation stage. Three organizations were preparing to divest fossil fuel holdings within the coming 30–60 days. Six organizations had already begun to divest fossil fuel holdings within the past 6 months. Eight organizations had been divested from fossil fuel holdings for more than 6 months. Table 4 presents stage of change information for each participant's organization. Median time frame for a decision to divest was 5 months. Decision time frames ranged from one day to one year.

**3.3.1.2. Divestment decision.** Moving from contemplation to preparation and action can be easier or more challenging. Analysis of the data yielded a typology of organizational readiness to commit to divestment (see Fig. 4). The typology sheds light on the differences among organizations regarding the time it took to move from contemplation to preparation, in the form of making a decision to divest. There were three general categories of organizational readiness:

“easy decision,” “engaged decision,” and “challenging decision.” Factors characterizing each type of organizational readiness are presented.

**3.3.1.2.1. Easy decision.** Four key factors influenced the foundation board's ease of decision-making in committing to fossil fuel divestment: (a) clear consensus on organizational values by the foundation board, (b) divestment viewed as consistent with the organization's mission, (c) clear decision-making processes in place, and (d) foundation already focused on increasing mission-aligned investing.

A leader of an organization that experienced an easy decision described it this way:

[T]he divest-invest discussion. . . evolved in. . . a very natural way from an overall conversation about our portfolio and our commitment to transitioning it to mission. The Divest-Invest pledge specifically...pushed [the board] out there maybe a little earlier than they might have wanted to be, but it wasn't...out of the blue. So that's why I think they could make that decision in a two-hour conversation because they'd been having a version of that conversation for a year. . . I didn't have a divided board really over this

**Table 4**  
Organization Stage of Change (Commitment Decision and Implementation of Divestment).

Foundation	Total institutional assets (millions)	Geographic Region	Months to Reach Divestment Decision	Stage of Change (Implementation of Divestment)
A	< \$10	West Coast	6	P
H	< \$10	East Coast	< 1	M
I	< \$10	East Coast	< 1	M
G	\$10–30	East Coast	5	A
N	\$10–30	East Coast	12	P
L	\$10–30	East Coast	< 1	P
O	\$10–30	Mountain/Midwest	< 1	M
M	\$10–30	West Coast	3	M
T	\$10–30	West Coast	5	M
X	\$30–100	East Coast	5	M
U	\$30–100	Mountain/Midwest	5	A
Y	\$30–100	West Coast	< 1	A
AJ	> \$100	East Coast	8	A
AE	> \$100	East Coast	12	M
AI	> \$100	East Coast	< 1	M
AC	> \$100	West Coast	5	A
AD	> \$100	West Coast	4	A

at all. I have had conversations with many, many other colleagues for whom they've got a bunch of, pardon the pejorative statement, Wall Street banker types who are like, oh, you can't do this. We don't have that problem. [F12]

Another leader described an easy divestment commitment process. Clarity regarding the organization's values, as expressed in the environmental, social, and governance screen, and the board's desire to support collective action led to a unanimous decision to divest publicly:

[W]e introduced it, discussed it, and resolved it at one board meeting. [I]t was a unanimous resolution... I would say, candidly, there were one, maybe two trustees who didn't feel nearly as strongly about it as the others did... [They] came from a more traditional viewpoint of how one invests one's portfolio... [W]e had already gone through the process of discussing our [environmental, social, and governance] screen, which took almost all... oil, gas, and coal stocks out of our portfolio, so... it was... 'Why not? We've already done it; let's sign on, and be supportive of the movement.' [F14]

Another leader described, "[I]t wasn't a particularly big deal for me,

other than being able to join a bunch of foundations who are... the big boys in the philanthropy world, and to have our little family foundation, say, "[W]e're all over signing on." [F1]

**3.3.1.2.2. Engaged decision.** Key characteristics of an engaged decision were: (a) organization inclined to, but tentative about immediate action; (b) required thoughtful research regarding the impact of divestment; (c) required education of the board; and (d) belief/confidence that there would be no negative impact of divestment.

One leader described others' concerns regarding the efficacy of divestment and post-divestment performance of the institution's portfolio:

We have two of our most conservative or careful board members on the Investment Committee... [T]hey weren't excited by the idea... [b]ut they weren't... totally opposed. They [said,] well, this isn't going to do anything in the world really. What's the point? And if we're going to lose money, is this the kind of money we want to lose? [F4]

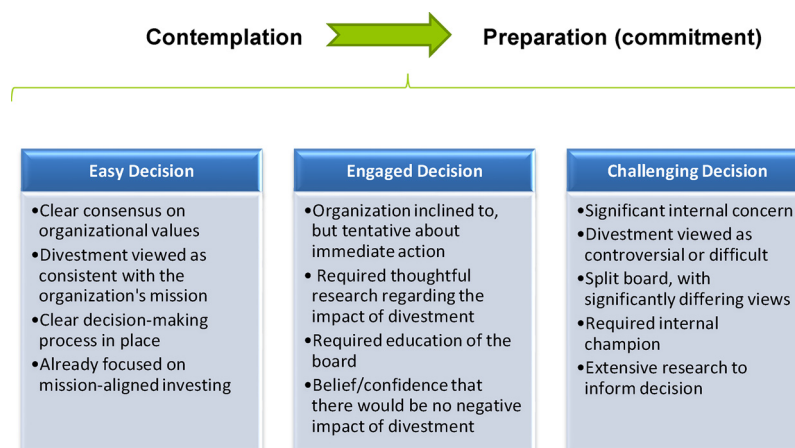
Another executive described a trajectory typical of an engaged decision. The organization's prior focus on investing in climate change solutions eased the process.

Before the divestment... we were looking for [grants and investments that represented climate] solutions... As a result... when it came to divestment, it was an easy vote. The only... hiccup was [the board champion proposed it], and it wasn't quite a slam dunk. The response from the board was... let's ask our advisors... to do a backward-looking review of with and without [fossil fuels]. And the degree of fossil fuel exposure the portfolio was holding... And the time period... they picked... there was negligent effect. In fact, it was sort of positive... So that... turned the tide on deciding to go for it. [F11]

**3.3.1.2.3. Challenging decision.** For organizations that experienced the divestment decision as challenging, analysis showed five key factors in reaching a decision: (a) significant internal concern among leadership regarding the decision; (b) divestment viewed as controversial or difficult; (c) board was split on the issue, with significantly differing views; (d) required an internal champion; and (e) extensive research to inform the decision.

One executive described his organization's challenging decision process, in which an internal champion played a key role. The process involved board members' questions about the feasibility of divestment, and hesitation by some members to be public about the decision.

The final decision was unanimous. The discussions leading up to it



**Fig. 4.** Organizational readiness to commit to divestment.

were not unanimous. [S]ome of the things that led to that lack of unanimity included questions like, how public do we want to be about our investment strategy? Is it our role as a foundation to be making public statements like this? Isn't it more important to be making environmental grants rather than making a statement through our investment policy? And... then what are the impacts to taxes, to our portfolio... There is a diverse set of opinions on our board still about the extent to which this is a very complicated thing to do or a very simple thing to do. And I think that diversity of opinions will stay for a while. [F13]

The leader added that “[W]e had one board member who championed it, who quickly recognized the importance of the movement, of the commitment, and saw it important for our foundation... to make a commitment to join... At the end of the day, that really mattered.” [F13]

One leader described a divestment commitment process that was relatively brief, but challenging, as board members grappled with conflicting understandings of fiduciary duty, the legal responsibility to manage prudently foundation assets.

It just took a couple of weeks... We had a majority. There was definitely some concern, if not outright dissent. We have been an interesting little marketplace... which represents many, many different points within a relatively small board on the arc from frustration at how slow this all moves to frustration that any of this is being talked about at all and what the notion of fiduciary responsibility is... I would tell you it's been a battle at times. [F3]

**3.3.1.3. Individual stage of change.** Analysis, at the individual level, revealed leaders' key thoughts, feelings, and actions as they facilitated the divestment behavior change. Fig. 5 highlights categories that characterized the cognitive, affective, and behavioral dimensions of leaders' experience, during each behavior change stage.

**3.3.1.3.1. All stages: engaging effective support from investment advisors.** Analysis showed that a critical dimension of the change process, during all stages, was leaders' actions to engage effective support from investment advisors. Participants consistently cited this “helping relationship” during contemplation and preparation stages as well as afterwards during the action and maintenance stages of implementation of the investing change. Many participants cited this process of change as crucial to their ability to support a divestment decision, particularly during the period of exploration and research preceding the divestment commitment. Foundation leaders' proactively

initiated this support. As one executive said, “[W]e... led [our investment advisors] to look at this stuff, and to give us the research on what would happen, and they came back with... very positive thinking about divestment.” [F5] As another executive advised, “[H]aving really, really good, positive investment professionals as your partners is really important.” [F12]

**3.3.1.3.2. Contemplation.** These cognitive and behavioral elements informed leaders' consideration of the implications and feasibility of divestment: specifically, the pros and cons of the divestment pledge (decisional balance inventory) and their confidence in the ability to divest (self-efficacy). Leaders engaged in three key behaviors during contemplation that supported their decisional balance inventory and sense of self-efficacy: (a) considering the implications of divestment; (b) educating themselves about the feasibility of divestment; and (c) engaging the foundation board in conversation. “Considering the implications of divestment” is presented and discussed in Section 3.3.2, on the separate TTM construct of decisional balance.

**3.3.1.3.2.1. Educating themselves about the feasibility of divestment**

Participants focused on educating themselves about the feasibility of divestment. The question of whether divestment was consistent with the foundation board's fiduciary duty was a dominant element of that exploration. One board leader's account illustrated this:

A point that was made... is whether making such a public [divestment commitment] in any way breaches your fiduciary responsibility as a trustee... So that conversation was intense [and] bitter enough, that it actually launched me on a year-long process of really diving into this notion of fiduciary responsibility, and what [you] could... or couldn't do... That's what inspired me to spend a lot of time and a little bit of money meeting with attorneys, meeting with a community of peers in [philanthropy], trying to get a sense of... this very ambiguous and very intimidating notion of fiduciary responsibility. [F3]

**3.3.1.3.2.2. Engaging the foundation board in conversation**

Another critical action in which leaders engaged was initiating conversations with the board: one-on-one, at the committee level, and in full board communication. Facilitating these conversations enabled the board to consider divestment, explore the implications, and reflect on the organization's values. Participants cited this aspect of leadership as particularly important in moving to a decision regarding divestment. One executive stressed the importance of an open learning environment and the importance of having previously engaged the board in conversations:

I had held conversations with different Board members on an

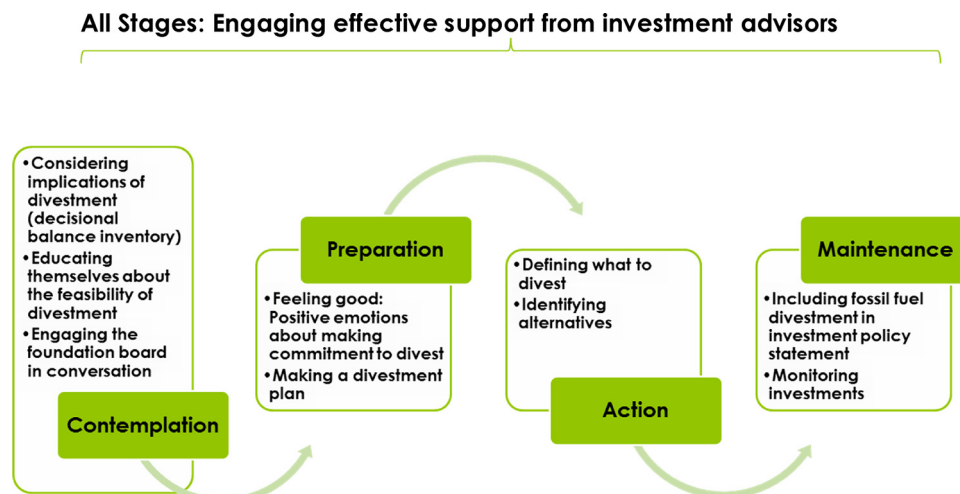


Fig. 5. Conceptual framework: Individual leader divestment commitment and implementation behavior change process.



individual basis for several years leading up to this big event that I'm talking about. But one-off individual conversations is different than an organized agenda item for full Board discussion. This was really the first time climate change and fossil fuels ever made it to the agenda of a Board meeting. [W]e really crossed the threshold. . . so that the trustees, the board directors, the chairman of our Investment Committee, they were willing to ask questions. They were willing to direct staff to have a thoughtful examination and due diligence on this process. [F15]

The ability to foster a learning environment was an important aspect of engaging the board in conversation. Enriching the learning environment included introducing external perspectives and enhancing safe space for new ideas. One executive described the importance of "creating an educational environment that depersonalizes [sustainable investing] when it's a new strategy." [F6] Another executive talked about facilitating "positive feedback loops so that [the divestment option is] not just coming from the executive director.. . Have it come from family, friends, acquaintances, others in the movement." [F13]

At the same time, some participants acknowledged the potential for or experience of crucial conversations, in which there were differing positions, the stakes were significant, and emotions could be strong [73]. One executive noted, "there may be one [board] member who's a champion, but they're really scared about making waves or presenting something that they imagine will be shot down." [F6] Another executive contextualized it this way, "[S]ome of the discussions that come up can be very, very passionate, and that can potentially cause disagreements that affect the quality of people's professional or in personal relationships. That's true of any deep discussion." [F15]

**3.3.1.3.3. Preparation.** Making an organizational commitment to divest marked the transition to the preparation stage of change, and therefore all leaders had experienced this stage of change. Three participants were in this stage, at the time of study. Two important elements emerged from leaders' stories about making the commitment to divest: (a) feeling good, positive emotions about making commitment to divest; and (b) making a divestment plan.

**3.3.1.3.3.1. Feeling good: positive emotions about making commitment to divest**

Positive emotions were strongly associated with the commitment to divest and mission alignment of investing. Participants described feeling elation, relief, liberation, satisfaction, and pride when they spoke about making the decision to divest. These positive emotions amplified participants' commitment and appeared to provide energy to move from preparation to action. "[I]t felt exhilarating. It's just really one of those moments where you put your money where your mouth is. . . I feel very proud of them as a board and us as an institution," said one executive. [F12] Another executive noted, "I was elated really and deeply grateful to the board for being willing to do this." [F18] One board leader shared, "[I]t's. . . good to [have committed to divestment]. . . [O]ur kids are happy. . . We're happy." [F9] Another leader said:

[W]hen you think about. . . the philanthropic management of capital, the culture of wealth preservation or accumulation, the culture of our financial industry and the constraints that it puts on the expression of our values and what we're working towards in terms of a more just, healthy, diverse, rich world, [then] it's really significant to liberate yourself from that to start to create something different. [F3]

A few participants acknowledged more complex feelings about the decision. One leader's reflection indicated a twinge of regret at not having acted sooner to divest, "I wish we just had gone down this path earlier." [F16]

**3.3.1.3.3.2. Making a divestment plan**

For most participants, moving their organization from contemplation to preparation required development of a plan for divestment. This element was apparent in one leader's description of the change process:

[W]e started by making a decision that we wanted to look at how hard it was, but with the idea that we wanted to [divest]. Then it probably took three months to come back and say, here's what [we] have, and here's what it really would take to do it. . . [I]t's probably taken six months since that point in time to work our way out of things. With hedge funds in particular, some of them are one-year exits. Others are quarterly exits, so it just takes lead time to get out of them. [F9]

**3.3.1.3.4. Action.** Moving from preparation to initial implementation of the divestment commitment represented entering the action stage. Participants were now actively engaged in divestment of fossil fuel holdings. Six leaders were at this stage of change, at the time of this study. When participants spoke about implementing the divestment commitment, they identified two main elements: (a) defining what to divest and (b) identifying alternatives.

**3.3.1.3.4.1. Defining what to divest**

Leaders noted the question of what constituted divestment as an important aspect of taking action to divest. Participants, including this leader, consistently referenced a specific decision-support tool: "So the Carbon Tracker 200 is all being added to our list of prohibited companies. And as that list of 200 companies changes, we'll have to keep updating that list, but that'll happen on an annual basis." [F13]

**3.3.1.3.4.2. Identifying alternatives**

The ability to identify alternative investments was another important aspect of this stage of change. This element is evident in these leaders' discussion of post-divestment investment decision-making:

[F]or us, the easy part was the divest; the harder part is the invest. . . [W]here the movement still has not come up to speed is that while there are some really obvious investment opportunities—wind, solar, hydro. . . there's a lot of gray areas around what constitutes a climate solutions investment. [F14]

**3.3.1.3.5. Maintenance.** Moving from initiating divestment implementation to longer-term sustainability of the commitment represented the maintenance stage of change. Two primary elements emerged: (a) including fossil fuel divestment in the foundation's investment policy statement, and (b) monitoring investments. The investment policy statement represented a structural policy adjustment to the organization's operations. Monitoring investments reflected a new level of engagement and sense of responsibility on the part of leaders in proactively attending to performance and investment decision-making.

**3.3.1.3.5.1. Including fossil fuel divestment in investment policy statement**

Most leaders confirmed that their organizations had updated their investment policy statements to include fossil fuel divestment. One executive noted, "[W]e developed a value-based addendum to our investment policy that explicitly called for us to be fossil-fuel free." [F17] One board leader described the importance and significance of the investment policy statement:

[T]he investment policy statement. . . took. . . another six months to. . . approve. . . It's not perfect for where we ultimately want to go. But it was important to me because of the questions raised about. . . what fiduciary responsibility meant in the context of a foundation like ours. . . And once we had it written down, for that to enable. . . the invest process without the. . . friction of every single investment [decision]. . . being another trigger for the same question. . . about what we could or couldn't do. [F3]

Another leader's comments underscored the nature of divestment as an intentional behavior: "It's possible that we wrote it into our investment policy. But even. . . that's not in stone. That's your investment policy until you do the next investment policy." [F9]

**3.3.1.3.5.2. Monitoring investments**

Leaders continued to exhibit enhanced engagement in directly

attending to the institution's investments and performance. This action was also associated with "confidence" and "positivity," which characterized leaders' attitudes about the performance of the portfolio, post-divestment. Indeed, most participants in this stage expressed strong confidence in their divestment decision and emphasized that their institutional portfolios had kept pace with or outperformed portfolios containing fossil fuel holdings.

One executive, whose foundation has been divested of fossil fuel holdings for two years, noted that their investment portfolio had beaten its performance benchmarks. "[W]e divested, and then of course the oil price went down... That may have been coincidental. I don't know... And now our advisor's like, wow, you got out just in time." The focus on fiduciary duty was also implicit:

Return is always... a challenge no matter what direction... we go in. So that's always feedback we get from the board is that the trustees have voted to exist in perpetuity... we don't want to lose the trajectory of building... the portfolio, so just making sure that we're secure that way. [F11]

Positive performance and monitoring investments were again evident in another executive's focus on the benefits of divestment, and also commitment to staying the course, "we're also prepared that if it gets hard, that we'll smartly, prudently weather the storm, but so far it's been great for our bottom line." [F17]

Familiarity and past experience with socially responsible investing was also associated with confidence in divestment, as exemplified by one leader's reflection:

[In] my experience as someone who's been involved with [socially responsible investing], for... 45 years, my portfolio has always done as well, if not better than other family members... I'm not concerned. I've always felt to be investing correctly in terms of my own moral values will always trump whether it's good performance, or not... You can always find good companies that are not doing harm to the environment. [F1]

### 3.3.2. Decisional balance inventory: considering implications of divestment

Moving from contemplation to preparation required a shift in participants' perceived benefits and challenges of divestment. Participants described a range of pros and cons that were important to them in committing to institutional divestment. Consistent with TTM theory and prior research, pros outnumbered cons, as shown in Table 5.

**3.3.2.1. Pros.** Leaders articulated five motivations for committing to divestment. The two primary motivations were the desire to align investing with mission, vision, values, and/or grant-making, and the desire to address the moral and economic challenges of climate change. Primary motivations were strengthened by leaders' reflections on personal past experience and values, desire to exercise leadership, and their view of divestment as an investment opportunity that would send a market signal to catalyze new investment services and products

**Table 5**

Divestment Commitment Decisional Balance Inventory.

Pros	Cons
Desire to align investing with mission/vision/values/grant-making	Time involved in researching and implementing the decision
Desire to address climate change (moral & economic)	Potential for decreased performance of the investment portfolio
Desire to exercise leadership	
Efficacy and feasibility of divestment, based on personal, past activist experience	
View of divestment as an investment opportunity that would send market signal to catalyze new investment services and products and influence public policy	

and influence public policy.

**3.3.2.1.1. Desire to align investing with mission/vision/values/grant-making.** All 18 participants cited the desire to bring the foundation's investments into alignment with organizational mission, vision, values, and grant-making as a primary motivator for making a commitment to fossil fuel divestment. One executive said, "Well, I think plain and simply... it's how can we be giving away 5 percent to do good work, when we may be doing bad work, or evil work with the other 95 percent?" [F14] Another executive spoke about moral discomfort of misalignment between investing and programs:

[W]e were feeling more and more hypocritical to be forcefully engaged in trying to combat global warming... while at the same time being invested in the fossil fuel companies that were producing the fuels that were then creating the carbon emissions in the first place. [F18]

The motivation to act consistently with espoused beliefs and grant-making was apparent in another leader's reflection on the primary reason to divest: "[T]he biggest pro [of divesting] was that we actually were saying and doing the same thing." [F16]

**3.3.2.1.2. Desire to address climate change (moral & economic).** Most participants talked about their personal awareness of climate change and desire to address that challenge. This awareness was often shared by others among the organization's leadership. Participants described being motivated to take action, both for moral and economic reasons. One executive offered an in-depth two-part rationale for the decision, emphasizing the moral and economic elements:

[W]e have for many years looked at climate change as the profound... moral and social and economic and environmental challenge of our time... But the second argument we made was... that there is a growing body of research and analysis that suggests that if...the global community is going to prevent catastrophic climate disruption by keeping global temperature rise to less than two degrees Celsius over pre-industrial levels, the actions that are necessary to keep us within that cap will mean that something like 60 to 80 percent of the known reserves of fossil fuels will have to remain in the ground unburnt...[T]hose assets are going to have declining value over time, and the companies that own them are going to have declining value over time. So as a long-term investor... we want to maintain in perpetuity the purchasing power of our assets. We think there's a strong economic argument to be made that those investments in fossil fuels are going to be increasingly risky over time, whereas...getting on the... early leading edge of investments in the clean energy technologies that are going to be necessary to replace fossil fuels are probably going to end up being very good investments over time. [F18]

Most participants described their awareness about climate change as building over a long period of time. The emotions connected with climate change were powerful for some participants and demonstrated the dramatic relief associated with raised consciousness. Several exhibited strong emotions, in the form of tears or choked voice, in describing the sense of urgency they felt to address climate change through divestment. Leaders expressed concern for their own family members, other people (in general) as well as for future generations and for natural systems. With respect to addressing climate change, one leader shared:

It's utter anguish at seeing what's happening and the pain that we don't need to be inflicting on other people and what's happening to the planet and knowing that we're at the very beginning of seeing some pretty wild stuff. [F2]

**3.3.2.1.3. Desire to exercise leadership.** Participants spoke of the role that philanthropic organizations could and should play in advancing social change through fossil fuel divestment. Views of leadership included assertion that foundations could afford to take the financial risk of divesting and that they should engage in change leadership to

tackle pressing problems. One leader said, “I felt it was an important opportunity for the foundation to take some leadership.” He emphasized the unique positionality of foundations: “I think the role of foundations can be that we can be early adopters; we can afford to take the risks.” [F14] Another executive stated that, “I just saw it as. . . a way for us to model leadership within our sphere.” [F6] The element of exercising leadership shone through as another leader talked about creating sector- and industry-wide change.

I want to. . . challenge philanthropy on breaking down the wall between the 95 and 5%, but I also think that philanthropy should be out in front in this movement and supporting this movement. We’re uniquely positioned to offer leadership not because we want fame for divesting, but that we could offer leadership with our portfolios. We could tolerate the risk to do it. We should be, because of our charitable tax status, looking at this as a public good anyhow. And our. . . social status could bring some legitimacy and credibility to the movement. And then finally we could help move the market. . . I thought philanthropy should lead for a number of reasons. [F17]

**3.3.2.1.4. Efficacy and feasibility of divestment, based on personal, past activist experience.** Participants described reflecting on their own identities as environmentalists, and/or past experience with activism, as they considered the efficacy and feasibility of divestment. Referencing past activist experience with South African divestment, one leader said:

I was very involved in the anti-Apartheid movement and the divestment movement when I was at [university]. . . And trying to get the [university] to divest was a challenge. They eventually did. And it was a successful movement. So I just want to say that I have experience with divestment. . . it makes sense to me. [F8]

Another leader emphasized the way in which past activist experience with divestment informed her thinking:

I think you can be skeptical about whether divestment. . . [is] useful. But, you know, I’m a child of the ‘60s. I went through South African divestment on my campuses. So I just mean it’s a no-brainer. If you can do it, do it. [F4]

**3.3.2.1.5. Viewing divestment as an investment opportunity that would send market signal to catalyze new investment services and products and influence public policy.** One executive noted the board’s recognition of divestment as an investment opportunity as a key reason to make and implement the divestment commitment:

[O]ne of the more compelling arguments for the board was not around the divest side, but it was. . . the opportunity to be involved on the invest side and learn about the ways to. . . ensur[e] that the money is going to. . . good solutions for climate change. . . and to. . . benefit from what we see as a true growing market in those climate solutions. [F13]

Participants associated divestment with the creation of new investment products and services. Leaders understood divestment as a means of catalyzing the emergence of these innovations. This was apparent in the statement of these executives:

[T]his whole Divest-Invest movement is sending a strong signal to the financial services industry. . . there are billions of dollars in foundations that are being committed to this, [which should cause them to recognize that they] should be providing products that will help attract that business. [F13]

Divestment was also associated with policy change. This focus on divestment as a means of contributing to policy change highlights the social change leadership dimension of divestment as a tactic. Divestment by a single institution was insufficient to bring about policy change; collective action was necessary in order to amplify the impact of divestment in influencing change at the public policy level. One

leader said,

[D]ivestment action is more than just simply a financial transaction. . . it is a statement that when it’s aggregated with other similar actions. . . sends a larger message about the public’s concern for the planet. . . which can. . . [send] a message to. . . decision-makers that are in a position to form public policy that either does or doesn’t protect the interests of the environment. [F15]

**3.3.2.2. Cons.** The two cons identified by participants were: (a) time involved in researching and implementing the decision, and (b) potential for decreased performance of the investment portfolio. This leader’s comments encapsulated the primary cons described by participants:

Are we doing it the right way? How do you decide which companies or industries to leave out? So it took a lot of time to have those conversations. . . [T]he only other con is if it’s a drag on return which is hard to know. [F9]

**3.3.2.2.1. Time involved in researching and implementing decision.** The first concern was the time involved in researching and implementing the decision. One leader said, “[F]iguring out who and how and all of that is another big project. . . [A] lot of this is just giving myself the time, making the time to focus on it. . . It’s a work in progress.” [F8]

**3.3.2.2.2. Potential for decreased performance of the investment portfolio.** Post-divestment performance of the portfolio also emerged in analysis of the interview data. Participants identified concerns about divestment. One typical question was: How will this affect our financial performance? Participants clearly recognized the fundamental importance of that question. As one leader said, “Any board that’s upholding its fiduciary responsibility is going to ask that question and should ask that question.” [F17] Another executive noted that “[E]ven though I’m not an expert in the investing, my job is to do what I can to sustain the foundation, and I didn’t want to take any risks that would jeopardize the continued preservation of growth of the endowment.” [F6]

### 3.3.3. Self-efficacy: factors influencing ability to divest

Self-efficacy can influence an individual’s motivation and persistence in engaging in behavior change, even under challenging circumstances. Self-efficacy is a characteristic of environmental leadership and is also a theorized predictor of positive deviance. The interview protocol included questions about what had facilitated or hindered the foundation’s divestment process. Participants identified factors that supported their ability to contemplate, prepare for, implement, and maintain the divestment decision. These factors are presented in Table 6. Understanding these critical factors is key to informing efforts to support divestment by other organizational leaders.

### 3.3.4. Processes of change

Understanding the factors that influenced leaders’ sense of self-efficacy is important. Consistent with the TTM, experiential and behavioral processes also supported leaders’ divestment change process. All 10 TTM processes of change were evident in content analysis of interview data: consciousness raising (awareness), dramatic relief, environmental reevaluation, self-reevaluation, social liberation, self-liberation, helping relationships, reinforcement management, counter conditioning, and stimulus control. Table 7 presents analysis relevant to TTM processes of change.

## 3.4. Discussion of results: leadership, positive deviance, and the TTM

The study highlighted leaders’ intentional actions, outside the norms of the philanthropic sector and corporate governance, to enact their values and beliefs through divestment, as a positively deviant

**Table 6**  
Factors Affecting Participants' Ability to Divest.

Factors Affecting Sense of Self-Efficacy
<p><b>Ability to identify fossil fuel holdings</b>            “[O]nce th[e divestment] decision was made...it was...at the same time that the Carbon Tracker 200 came out, so it made it even easier...[to] see how many of those companies we had.” [F11]</p> <p><b>Availability of alternative (i.e., non-fossil fuel) investment vehicles</b>            “For us it was not difficult because we had hired an investment consultant with deep experience in ESG and deep knowledge of the renewable clean tech sectors. So we have found products to invest in. We’re well over 10% invested in renewables and probably 38% invested in...clean tech and low-carbon industries beyond the direct investments in renewables.” [F17]</p> <p><b>Changing investment advisors</b>            “[W]e made the very tough decision that we needed to exit from the relationship with [our investment advisors] and find a new outsourced CIO who would be more able to help us realize our mission-aligned investing goals.” [F18]            “[W]e’re with this traditional company. . . we’re not the only ones talking to them about this. But they’re not fast to jump on anything. So in terms of implementation, eventually we may need to move to a socially responsible firm.” [F8]</p> <p><b>Clear definitions of what constitutes divestment</b>            “[H]ow do we frame what our desired divestment is? Is it from everything? Is it exploration? What do we do about gas? So those issues came up, and we talked about a timeline. And we talked about, were we trying to get to less than 2% or to 0%?” [F10]</p> <p><b>Effective support from investment advisor/s</b>            “Basically the message that I’m getting is work with people who know how to do this.” [F8]            “[T]he other choke point often times is with the advisors, the commercial firms whose business it is to advise investors on what’s out there in the field and what’s possible, and what’s the likely return.” [F15]</p> <p><b>Existence of pro-SRI institutional investment policy statement</b>            “[R]emoval of fossil fuels] was part of an ESG screening policy that we had developed, and so it was very easy to sign up for Divest-Invest.” [F14]</p> <p><b>Familiarity with/prior engagement in socially responsible investing</b>            “Divestment is an evolutionary step emerging from the employment of SRI. So a lot of the principles—investment policy statement, the concepts - were all embraced and long since adopted. To say that Divest-Invest was a novel idea injected as a surprise, it was not. We’d already done SRI, negative screening and positive investment. Divest-Invest was a next step. It was kind of comical when [our investment advisor] asked, so would you all consider a three- to five-year plan to divest? We looked at each other and said, how about two weeks?” [F7]</p> <p><b>Not owning a high percentage of fossil fuel holdings, to begin with</b>            “It turned out we didn’t have any coal at all, maybe because of our proactive screening in the first place. And [divestment] happened just overnight.” [F11]</p> <p><b>Resources provided by movement organizers and think tanks (personnel and decision-support tools)</b>            “[O]ne thing that I appreciate about the movement is. . . they’re. . . trying to help foundations understand where they fall [in terms of size], and then thinking about what could be done over time. . . I appreciate that because they’re big decisions to make.” [F8]</p>

form of socially responsible investing. Participants’ shift to a proactive and engaged leadership stance with respect to mission-aligned institutional investing represented a departure from the conventional role of executive leadership in philanthropic organizations.

The positive organizational scholarship construct of positive deviance [12] offered the greatest explanatory power both with respect to predictors of action as well as outcomes. Participants’ mission-aligned leadership stance was consistent with research that humans desire to act in accordance with their values [74]. This desire for alignment between behavior and identity and values was reflected in self-re-evaluation, one of the TTM’s ten processes of change [16]. By their nature as philanthropic organizations, foundations may be understood to operate based on benevolence, one of the values categorized within self-transcendence [75]. The value of self-transcendence has been shown to positively predict environmental concern [76]. Other research has shown that individuals are more likely to engage in prosocial behavior when they reflect on being a benefactor to others, rather than a beneficiary [77].

Moving individuals to action is challenging [14]. Sustaining that change can be even more difficult. As Heimlich [14] noted in an

evaluation of the effectiveness of environmental education, “myriad educators and scientists continue to believe if people just know enough, they’ll change” (p. 184). Knowledge or awareness is simply one of the first elements of a person’s readiness to engage in a new behavior. Other affective and cognitive experiential processes, combined with behavioral processes, often are required in order to facilitate movement from contemplation of a behavior change to actual embrace of and sustained engagement in that change.

Findings and analysis supported the utility of employing the TTM as a theoretical framework for making sense of the readiness of organizational leaders to engage in new pro-environmental behavior. Utility of the model was reflected in the analysis of findings: organization stage of change (Table 4), stage-based conceptual framework for foundation leadership divestment decision making and implementation process (Fig. 5), decisional balance inventory (Table 5), self-efficacy (Table 6), and processes of change (Table 7).

Lewin [78] suggested that “Nothing is as practical as a good theory” (p. 169). The decisional balance and self-efficacy constructs within the TTM are resonant with other PEB theoretical change models. However, the TTM provided two important differences: (a) the stage-based construct for considering an individual’s readiness to engage in a new behavior; and (b) the processes of change construct, which provides a clear framework for facilitating change. These attributes of the TTM seem to be a significant advantage of the model in terms of providing a theoretical and methodological framework for understanding PEB and serving as a tool that practitioners can actually use in facilitating fossil fuel divestment and possibly other forms of climate action focused on energy transition.

Diffusion of innovation theory [79] suggests that populations adopt behavior change in a predictable pattern, beginning with innovators, then moving to early adopters, the early majority, the late majority, and laggards. Social movement theory [80] and theory specific to divestment [11] further suggest that successful change initiatives begin with a core group, building toward being more commonly embraced by broader sectors of the population. Findings of this study suggested that leaders’ institutional divestment identified them as innovators, for those who initiated the Divest-Invest Philanthropy movement. Those foundation leaders who joined in the movement’s second, third, and subsequent waves of divestment commitments could be seen as early adopters.

Findings that leaders’ positively deviant behavior in pursuing fossil fuel divestment generated positive emotions and yielded organizational benefits were intriguing. These findings suggest the value of future research on individual and organizational well-being of engaging in positive deviance, including with respect to divestment, specifically, and to socially responsible investing and other forms of activism more generally.

Future research could also explore application of the TTM, based on selection of different sample populations, such as higher education leaders and others subject to external pressure to divest. Research might focus on factors affecting movement from pre-contemplation to contemplation of divestment and on the presence of positive emotions associated with divestment.

### 3.5. Discussion of methods and limitations of the study

This study was designed to explore the interplay between leaders’ personal commitment toward climate-change-related socially responsible investing behavior, their institutions’ commitment toward fossil fuel divestment, and the leaders’ role in changing the institution’s investing practices. The problem of method in this study was primarily the decision to select a positive deviance approach and combine that with the use of the TTM as a primary theoretical framework, as the most effective way to examine the phenomenon in question. I did not identify serious limitations of the TTM as a theoretical and methodological model with respect to PEB. Another methodological choice was the



**Table 7**  
TTM Processes of Change and Evidence of Leader Experience.

TTM Processes of Change	Description of TTM Processes of Change	Evidence of Leader Experience
Consciousness Raising (Awareness)	Increasing awareness via information, education, and personal feedback about a problem behavior and potential solution	Motivation to divest, based on their understanding of climate change and the consequent need to end the use of fossil fuels
Dramatic Relief	Experiencing negative and positive emotions regarding the behavior/ change; feeling emotional arousal (such as fear, anxiety, or worry) about failure to change or <i>status quo</i> , or feeling inspiration and hope about successful change	Strong emotions about climate change; Positive emotions about committing to divestment; regret at not acting sooner
Environmental Re-evaluation	Assessing impact on others of your behavior and possible change	Recognition of the problematic impacts of fossil fuels on human and ecological systems
Self Re-evaluation	Realizing that the behavioral change is important to one's personal identity, happiness, success and/or values	Desire to align investments with mission, vision, values, and/or grant-making; reflection on leaders' own identity as environmentalists and activists, including prior experience with South African divestment and other forms of socially responsible investing
Social Liberation	Empowering individuals to engage in the change behavior through providing choices and resources; societal support for this behavior; realizing that social norms are changing to support the new behavior	Recognition of the divestment movement and the resources movement organizers provided to support the divestment behavior change
Self-liberation	Making a firm commitment to change; believing in one's ability to change and making commitments and recommitments to act	Divestment commitment
Helping Relationships	Seeking and using social support to make and sustain change; interacting with people who are supportive of the change	Actions to engage the effective support of investment advisors; support by movement organizers
Reinforcement Management	Increasing rewards for new behaviors and decreasing rewards for old behaviors	Positive performance of portfolio, post-divestment; positive feedback from others about the divestment decision
Counter Conditioning	Substituting pro-change ways of acting and thinking for old behaviors	Reinvestment of institutional assets into "climate solutions"
Stimulus Control	Restructuring the environment by removing reminders and cues to engage in the old behaviors; introducing reminders and cues to engage in the new behaviors	Actions to include fossil fuel divestment in the foundation's investment policy statement

study's use of multiple data sources: triangulation of data collected from foundation leaders and the public statements that they and their organizations made.

The ease of participant recruitment was a notable aspect of this study. I conducted outreach to 24 foundations within the study population, with the goal of interviewing 12 leaders. The response from prospective participants, via direct outreach, personal introductions by third-party contacts, and snowball sampling technique, was so robust that I arrived, through this process, at 18 participants. Four foundations did not respond to outreach for the study. The leader of a fifth foundation was on sabbatical and not available during the data collection period. I conducted a preliminary qualifying interview with a sixth foundation executive and determined, based on that individual's input, that the executive of another foundation within the population met the criteria for inclusion in the study. The two foundations shared some overlapping board leadership, and divestment decision-making for both foundations had been informed primarily by the leadership of the sister foundation. I had been concerned that recruitment might prove quite challenging. I was pleasantly surprised by the prompt and engaged participation of these leaders in the study.

Participants were open and candid in responding to the study questions. I was bolstered by their interest in the project, and by the laughter that punctuated each interview. Perhaps because of the proactive, positively deviant and social movement-based nature of the phenomenon at the heart of the study – and because they viewed divestment as an act of leadership – participants were ready to share their experience with the divestment process. These private, independent philanthropic foundations are self-supporting, financially, have no explicit or obvious accountability to external audiences (e.g., customers, clients, shareholders), and frequently operate without significant transparency or publicity. The special nature of the study population made the candor of the participants that much more notable.

A primary limitation of this study is that the findings may not be generalizable to other organizational leaders. The readiness of other organizational leaders (e.g., charitable, political, higher education, and religious organizations) to commit to fossil fuel divestment might differ significantly from this study's population. Another limitation of the study was its reliance on the self-reported recollections of interviewees about their reasons for committing to this pro-environmental behavior

change. However, this was not a significant limitation as the study phenomenon was a highly salient experience in the recent past.

Another possible limitation of the study was the phenomenon of "experimenter expectancy" ([81], p. 5). This weakness is present when a researcher looks for and/or finds what that individual expects to find [82,83]. This limitation might have applied if I had conducted the semi-structured interviews in a way that "led" the participants to frame their responses in ways that required a belief in climate change or full support of institutional divestment, or with respect to specific factors that I surfaced from other prior research (e.g., positive deviance, the TTM). My communication with participants, including the informed consent form and interview protocol, made no reference to positively deviant leadership, the TTM, or the construct of stages of readiness to engage in divestment, as a new behavior. Concerns about undue influence of image management were held in check by strictly maintaining the anonymity of the participants and the names of the foundations represented in the study. For example, participants shared freely the disagreements, within the organization, about the divestment decision. The interview protocol included an item concerning the way in which the divestment decision had affected each participant, personally. This item facilitated understanding the way in which organizations' divestment decisions compared with leaders' own personal perspective on divestment. Indeed, several participants exhibited strong emotions, in the form of tears or choked voice, in describing the sense of urgency they felt to address climate change through divestment.

Mastering the literature, lenses, and knowledge of one scholarly field is a major challenge. Attempting to draw upon the diverse literatures, epistemologies, and methodologies covered by this study was particularly difficult and also intriguing. I have learned the challenge and power of interdisciplinary research, and the utility of drawing upon theory from the field of clinical psychology to inform social science energy and climate research. Most importantly, this study has reinforced, for me, the understanding that individual behavior is shaped by systems. The ability of social movements and networks to aggregate and to inspire action is powerful. Therefore, psychological research methods for understanding pro-environmental behavior change, including fossil fuel divestment and reinvestment in clean energy, have a greater impact and depth when situated within the inescapable context of social systems and organizations.

#### 4. Conclusion

The serious, even existential, threats posed by climate change call for urgent and effective change leadership. Because combustion of fossil fuels is the leading contributor to anthropogenic climate change, signaling a clear aversion by investors to fossil fuel extraction, through divestment, contributes to stigmatizing the fossil fuel sector. Divestment encourages “de-carbonization” of energy systems as investors shift financial resources to clean, renewable energy sources. Study participants’ positively deviant mission-aligned leadership created a demonstration effect for others and catalyzed innovation in the financial sector, in terms of new fossil-fuel-free investment products and services.

One way that people have talked about dependence on the conventional fossil fuel energy sector is as an addiction. This study used a positive deviance research approach and a leading clinical psychology change model, the Transtheoretical Model of Behavior Change (TTM), to explore how organizational leaders successfully broke that addiction, in terms of institutional investing. Findings suggest that the TTM may be an effective theoretical and methodological framework for research and practice in advancing climate action, including abandonment of fossil fuel investments and subsequent reinvestment of financial resources in clean energy sources and infrastructure.

Key study findings were that: (a) divestment took place within the context of overall movement to increasing mission-aligned institutional investing, consistent with pro-environmental behavior; (b) organizational readiness to commit depended on the extent to which the board had consensus on mission-aligned investing and viewed divestment as consistent with mission; (c) the TTM constructs of stages of change, decisional balance, self-efficacy, and processes of change were evident; (d) leaders took decisive action and engaged in positive deviance by stepping outside investing norms of the philanthropic sector to embrace pro-environmental collective action and to adopt a mission-aligned investing approach; and (e) leaders’ positively deviant behavior in pursuing fossil fuel divestment, through mission-aligned institutional investing, generated tangible organizational benefits as well as positive emotions.

Leaders of institutions with substantial financial resources are well-positioned to facilitate climate action through fossil fuel divestment. By surfacing the candid reflections of positively deviant leaders, this study yielded insights into the benefits and challenges of leading this type of change; what processes may best support leaders in enacting divestment; and how leaders can engage the power of their institutions to address climate change. Indeed, leaders engaging in divestment may experience heightened levels of satisfaction, pride, happiness, and engagement with organizational roles.

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